

Exhibit No.:
Witness: Kottwitz
Issues: Lost & Unaccounted For Gas
Sponsoring Party: MoPSC Staff
Type of Exhibit: Direct Testimony
Case No.: GR-93-172

MISSOURI PUBLIC SERVICE COMMISSION
UTILITY OPERATIONS DIVISION

MISSOURI PUBLIC SERVICE
CASE NO. GR-93-172

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DIRECT TESTIMONY
OF
JOHN D. KOTTWITZ

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May, 1993

1 DIRECT TESTIMONY
2 OF
3 JOHN D. KOTTWITZ
4 MISSOURI PUBLIC SERVICE
5 CASE NO. GR-93-172

6 Q. Please state your name and business address.

7 A. My name is John D. Kottwitz and my business address is
8 P.O. Box 360, Jefferson City, Missouri 65102.

9 Q. By whom are you employed and in what capacity?

10 A. I am employed by the Missouri Public Service Commission
11 (PSC or Commission) as a Staff Engineer in the Gas Safety section of the
12 Energy Department.

13 Q. Would you please review your educational background and
14 work experience?

15 A. In 1983, I received a Bachelor of Science degree in Civil
16 Engineering from the University of Missouri at Rolla. Upon graduation,
17 I accepted employment with Northern Illinois Gas Company (NIGas).
18 During my three years with NIGas, I worked in natural gas operations and
19 facility design.

20 Since July 1, 1986, I have been on the Staff of the PSC.
21 During my employment with the Commission, I have conducted inspections,
22 evaluations, and investigations of natural gas operators for compliance
23 with applicable State and Federal safety regulations. I have
24 successfully completed the seven courses provided by the U.S. Department
25 of Transportation at the Transportation Safety Institute regarding
26 enforcement of the Federal pipeline safety code (49 CFR, Part 192). I
27 am a member of NACE International and the Gas Piping Technology
28 Committee (ANSI/GPTC Z380).

29 Q. Have you previously testified before the Commission?

30 A. Yes. I presented testimony in Case Nos. GA-89-126, GR-90-
31 50, GC-91-150, GR-90-198, and GR-91-291 before the Commission.

32 Q. What is the purpose of your direct testimony?

33 A. My testimony will address lost and unaccounted for gas

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1 (L&U) factors for Missouri Public Service (MoPub or Company).

2 Q. Did you review the Company's L&U factors in its previous
3 gas rate case, Case No. GR-90-198?

4 A. Yes.

5 Q. What were the results of your review in that case?

6 A. I found that the Company's data was insufficient to
7 determine the contribution of several L&U components. Therefore, L&U
8 factors were developed on a system average for the Northern and Southern
9 systems using Company data provided for a three-year time period from
10 September of 1986 through August of 1989. The computation method
11 resulted in an L&U that was not the actual L&U, but rather the
12 difference between purchases and the sum of billed sales,
13 transportation, and Company use. Unbilled sales were not considered in
14 the Staff's determination of normal annual sales, so they were included
15 in my determination of the L&U.

16 The results were L&U factors of 7.06% for the Southern system
17 and 5.22% for the Northern system, with L&U expressed as a percentage
18 of purchases in Dekatherms. When purchases in undeviated Mcfs were
19 used, the L&U factor for the Southern system was 1.63% of sales. This
20 percentage is used in the Company's Purchased Gas Adjustment Clause as
21 found on MoPub's P.S.C. MO. No. 5, original Sheet No. 45.

22 Q. Have you updated this review?

23 A. Yes, I have developed similar L&U system factors for the
24 three-year time period from September of 1989 through August of 1992.
25 The L&U factor for the Northern system remained relatively constant at
26 5.28% of Dekatherm purchases. However, the L&U factor for the Southern
27 system dropped substantially to 3.28%, when expressed as a percentage
28 of Dekatherm purchases, and -0.75% when undeviated Mcf purchases were
29 used. Even when unbilled sales are removed from the L&U, the L&U factor
30 is still negative at -0.54%.

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1 Q. Please expand upon the L&U factor for the Southern system.

2 A. Since the Company's sales are made in undeviated Mcfs, the
3 L&U factor using purchases in undeviated Mcfs is a direct comparison
4 that does not include measurement and BTU factors. While the L&U should
5 be expected to drop slightly as leaks are removed through the
6 replacement program, the L&U factor should not be a negative quantity.
7 A negative L&U factor indicates the Company sold, transported, and used
8 more gas than it purchased.

9 The negative L&U factor for the Southern system has been
10 brought to the Company's attention in Data Request No. 3214, wherein an
11 explanation was requested. MoPub responded that:

12 "At the present, MPS is unable to explain the negative
13 loss factor (undeviated basis) on the Southern system.
14 This situation is currently being investigated."

15 Q. What did you conclude?

16 A. The L&U factor for the Northern system has not changed
17 substantially since the Company's last gas rate case, Case No. GR-90-
18 198. The Company's data for the Southern system however, yielded
19 questionable results. Because of the unusual results obtained for the
20 Southern system, further review and investigation is warranted before
21 any changes are made.

22 Q. What are your recommendations?

23 A. I recommend that MoPub continue to use the L&U factors
24 presently in effect until an appropriate L&U factor can be determined
25 for the Southern system. I also recommend that MoPub submit a report
26 detailing the reasons why a negative loss factor resulted. This report
27 should be submitted to the Manager - Energy Department by December 31,
28 1993.

29 Q. Does this conclude your direct testimony?

30 A. Yes, it does.

31

My commission expires